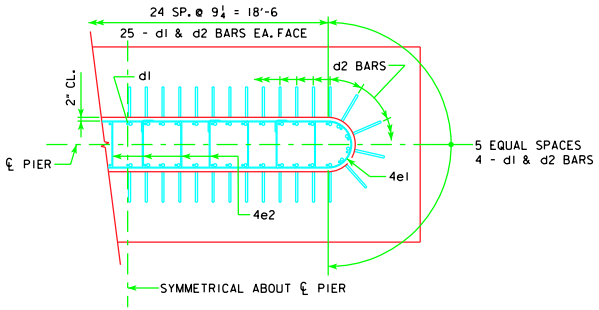
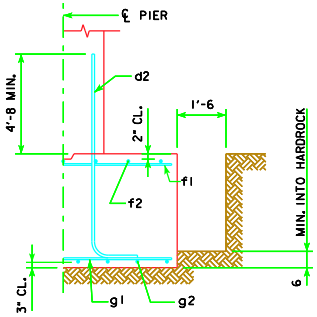
H IN FT.	℄ - ℄ ABUT. BRG.	FOOTING SIZE
16 TO 18	160'-0	4' x 8' x 27'
	180'-0	
	200'-0	4' x 9' x 27'
	220'-0	
	240'-0	4' x 9' x 29'
	260'-0	4' x 10' x 29'
	280'-0	
	300'-0	4' x 10' x 31'
	320'-0	
	340'-0	4' x 11' x 31'
19 TO 21	160'-0	4' x 8' x 27'
	180'-0	
	200'-0	4' x 9' x 27'
	220'-0	
	240'-0	4' x 9' x 29'
	260'-0	4' x 10' x 29'
	280'-0	
	300'-0	4' x 10' x 31'
	320'-0	4' x 11' x 31'
	340'-0	
22 TO 24	160'-0	4' x 8' x 27'
	180'-0	4' x 9' x 27'
	200'-0	
	220'-0	4' x 9' x 29'
	240'-0	4' x 10' x 29'
	260'-0	
	280'-0	4' x 10' x 31'
	300'-0	
	320'-0	4' x 11' x 31'
	340'-0	
25 TO 27	160'-0	4' x 8' x 27'
	180'-0	4' x 9' x 27'
	200'-0	
	220'-0	4' x 9' x 29'
	240'-0	4' x 10' x 29'
	260'-0	
	280'-0	4' x 10' x 31'
	300'-0	4' x 11' x 31'
	320'-0	
	340'-0	
28 TO 30	160'-0	4' x 9' x 27'
	180'-0	
	200'-0	4' x 9' x 29'
	220'-0	
	240'-0	4' x 10' x 29'
	260'-0	
	280'-0	4' x 10' x 31'
	300'-0	4' x 11' x 31'
	320'-0	
	340'-0	4' x 11' x 33'
31 TO 33	160'-0	4' x 9' x 27'
	180'-0	
	200'-0	4' x 9' x 29'
	220'-0	4' x 10' x 29'
	240'-0	
	260'-0	4' x 10' x 31'
	280'-0	
	300'-0	4' x 11' x 31'
	320'-0	
	340'-0	4' x 11' x 33'
34 TO 36	160'-0	4' x 9' x 27'
	180'-0	
	200'-0	4' x 9' x 29'
	220'-0	4' x 10' x 29'
	240'-0	
	260'-0	4' x 10' x 31'
	280'-0	4' x 11' x 31'
	300'-0	
	320'-0	
	340'-0	4' x 11' x 33'

H IN FT.	℄ - ℄ ABUT. BRG.	FOOTING SIZE
37 TO 40	160'-0	4' x 9' x 27'
	180'-0	4' x 9' x 29'
	200'-0	
	220'-0	4' x 10' x 29'
	240'-0	
	260'-0	4' x 10' x 31'
	280'-0	4' x 11' x 31'
	300'-0	
	320'-0	4' x 11' x 33'
	340'-0	

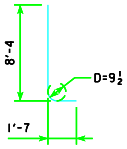
FOOTING SIZE	REINFORCING STEEL (ONE FOOTING)					STRUCTURAL CONCRETE (CY)
	BAR	NO., SIZE & SPACING	LENGTH	WEIGHT (LB.)	TOTAL WEIGHT (LB.)	
4' x 8' x 27'	d2	58 - #9 AS SHOWN	9'-11	1956	3107	32.0
	f1	27 - #5 @ 1'-0	7'-8	216		
	f2	8 - #5 @ 1'-0	26'-8	223		
	g1	27 - #6 @ 1'-0	7'-8	311		
	g2	10 - #6 @ 0'-10	26'-8	401		
4' x 9' x 27'	d2	58 - #9 AS SHOWN	9'-11	1956	3345	36.0
	f1	27 - #5 @ 1'-0	8'-8	244		
	f2	9 - #5 @ 1'-0	26'-8	250		
	g1	31 - #6 @ 0'-10½	8'-8	404		
	g2	9 - #7 @ 1'-0	26'-8	491		
4' x 9' x 29'	d2	58 - #9 AS SHOWN	9'-11	1956	3785	38.7
	f1	29 - #5 @ 1'-0	8'-8	262		
	f2	9 - #5 @ 1'-0	28'-8	269		
	g1	35 - #6 @ 0'-10	8'-8	456		
	g2	11 - #8 @ 0'-10	28'-8	842		
4' x 10' x 29'	d2	58 - #9 AS SHOWN	9'-11	1956	4137	43.0
	f1	29 - #5 @ 1'-0	9'-8	292		
	f2	10 - #5 @ 1'-0	28'-8	299		
	g1	34 - #7 @ 0'-10	9'-8	672		
	g2	12 - #8 @ 0'-10	28'-8	918		
4' x 10' x 31'	d2	58 - #9 AS SHOWN	9'-11	1956	4794	45.9
	f1	31 - #5 @ 1'-0	9'-8	313		
	f2	10 - #5 @ 1'-0	30'-8	320		
	g1	37 - #7 @ 0'-10	9'-8	731		
	g2	18 - #8 @ 0'-6½	30'-8	1474		
4' x 11' x 31'	d2	58 - #9 AS SHOWN	9'-11	1956	5271	50.5
	f1	31 - #5 @ 1'-0	10'-8	345		
	f2	11 - #5 @ 1'-0	30'-8	352		
	g1	37 - #8 @ 0'-10	10'-8	1054		
	g2	15 - #9 @ 0'-9	30'-8	1564		
4' x 11' x 33'	d2	58 - #9 AS SHOWN	9'-11	1956	5945	53.8
	f1	33 - #5 @ 1'-0	10'-8	367		
	f2	11 - #5 @ 1'-0	32'-8	375		
	g1	40 - #8 @ 0'-10	10'-8	1139		
	g2	15 - #10 @ 0'-9	32'-8	2108		



d2 BAR LAYOUT
(SEE SECTION A-A ON SHEET RS40-136-10.)



TYPICAL SECTION



d2

NOTE: D = PIN DIAMETER.
DIMENSIONS ARE OUT TO OUT.

FOOTING NOTES:

THESE SPREAD FOOTINGS ARE DESIGNED AND DETAILED TO BE USED WITH THE CAP AND COLUMN DETAILS OF THE TEE PIERS AS SHOWN ON SHEET RS40-136-10.

THESE SPREAD FOOTINGS SHALL EXTEND AT LEAST 6 INCHES INTO SUITABLE FOUNDATION ROCK AND THE LAST 6 INCHES OF ROCK EXCAVATION SHALL BE TO NEAT LINES OF MASONRY. THE FOUNDATION ROCK SHALL HAVE A MINIMUM LRFD NOMINAL BEARING RESISTANCE OF 30 kips PER SQUARE FOOT (ALLOWABLE BEARING VALUE OF AT LEAST 5 TONS PER SQUARE FOOT).

LATEST REVISION DATE

APPROVED BY BRIDGE ENGINEER

Iowa Department of Transportation
Highway Division

STANDARD DESIGN - 40' ROADWAY, 3 SPAN BRIDGES

ROLLED STEEL BEAM BRIDGES

JUNE, 2010

TEE PIER - SPREAD FOOTINGS
20° SKEW - SHEET 1

RS40-144-10